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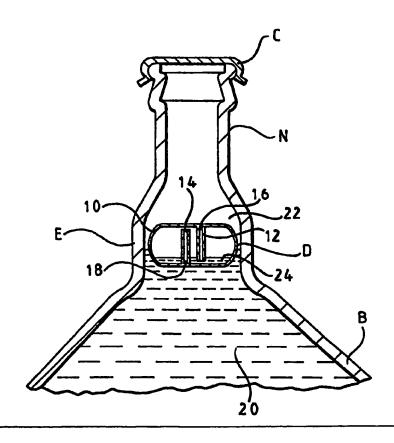
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

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(54) Title: CONTAINER FOR PRESSURIZED LIQUIDS WITH FOAM GENERATING DEVICE

(57) Abstract

A sealed, openable, pressurised liquid container comprises a bottle B partly filled with liquid to provide a headspace (22). A foam-promoting device D floats on the liquid in the bottle. The device D comprises a hollow body (10) having first and second tubes (12 and 14). The first tube (12) has an upper end in communication with the exterior of the hollow body via a restricted orifice (16) disposed in the headspace (22) in the bottle, and a lower end in communication with the interior of the hollow body (10). The second tube (14) has a lower end in communication with the exterior of the hollow body via a restricted orifice (18) disposed below the surface of the liquid (20) in the bottle B, and an upper end in communication with the interior of the hollow body (10). The lower end of the first tube (12) is disposed at a lower level than the upper end of the second tube (14). The device D is partly filled with liquid (24) to a level intermediate the levels of the lower end of the first tube (12) and the upper end of the second tube (14) so that the lower end of the first tube (12) is submerged in the liquid (24) in the device D and the upper end of the second tube (14) is disposed above the level of the liquid (24) in the device D.



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A. CLASSIFICATION OF SUBJE IPC 6 B65D79/00 ATTER

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 6 B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

		Delaward to alain Ma
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
х	EP,A,O 594 221 (WHITBREAD PLC; HEINEKEN TECH SERVICES (NL)) 27 April 1994 see column 9, line 57 - column 10, line 45 see column 12, line 5 - column 13, line 23 see figures 1,2,18-22	17-19
Y	See Figures 1,2,10 LL	20
P,A	EP,A,0 673 855 (NITROFLO DEVELOPMENTS LIMITED) 27 September 1995 see column 6, line 3 - column 6, line 58 see figures 1-3,13,14	17-19
Y	GB,A,2 280 886 (WHITBREAD PLC ;HEINEKEN TECH SERVICES (NL)) 15 February 1995 cited in the application see page 13, line 15 - page 13, line 35 see figure 7	20
	-/	

X Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.
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later than the priority date claimed	'&' document member of the same patent family
Date of the actual completion of the international search	Date of mailing of the international search report
12 December 1996	09.01.97
Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+ 31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+ 31-70) 340-3016	Farizon, P

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0.00	tion) DOCUMENTS SIDERED TO BE RELEVANT	P 8 96/01460
Category *		Refevant to claim No.
- Company		
А	WO,A,94 21533 (PA CONSULTING SERVICES; REYNOLDS ANDREW JOHN (GB); SKINGSLEY JOHN) 29 September 1994 see page 2, line 28 - page 4, line 3 see page 6, line 23 - page 9, line 26 see figures 1-3	1,14,15
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Box I Observations where conclaims were found unsearchable (Continuation of its
This international Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
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3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims. As all searchable claims could be searches without effort justifying an additional fee, this Authority did not invite payment
2. As all searchable claims could be searches without errort justifying an auditional fee, discovering and additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.

Information on patent family members

In tional Application No

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP-A-0594221	27-04-94	AT-T- 133127 CN-A,B 1054399 DE-D- 69024971 DE-T- 69024971 EP-A- 0502059 EP-A- 0686573 ES-T- 2082015 WO-A- 9107326 HK-A- 90396	15-02-96 11-09-91 29-02-96 30-05-96 09-09-92 13-12-95 16-03-96 30-05-91 31-05-96
EP-A-0673855	27-09-95	HU-A- 67378 NONE	28-04-95
GB-A-2280886	15-02-95	AU-A- 7348994 AU-A- 7349094 CA-A- 2167049 EP-A- 0712368 EP-A- 0712369 WO-A- 9505325 WO-A- 9505326 GB-A,B 2280887 NZ-A- 269836 NZ-A- 269837 ZA-A- 9406088 ZA-A- 9406089 AU-A- 1423195 AU-A- 1423195 AU-A- 1459395 AU-A- 2158838 CA-A- 2158838 CA-A- 2180675 EP-A- 0702649 EP-A- 0739209 EP-A- 0739300 WO-A- 9519923 WO-A- 9519923 WO-A- 9519923	14-03-95 14-03-95 23-02-95 22-05-96 22-05-96 23-02-95 15-02-95 28-10-96 28-10-96 14-08-95 14-08-95 08-08-95 08-08-95 08-08-95 07-07-95 27-07-95 27-07-95 27-07-95 27-07-95 27-07-95 27-07-95 27-07-95

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Information on patent family members

In total Application No PC 96/01460

Patent document cited in search report			family er(s)	Publication date
GB-A-2280886		GB-A-	2285792	26-07-95
		GB-A-	2285793	26- 0 7-95
		GB-A-	2286379	16-08-95
		ZA-D-	9500472	27-03-96
		ZA-A-	9500473	02-05-96
WO-A-9421533	29-09-94	AU-A-	6217194	11-10-94
	 ·	CA-A-	2158645	29-09-94
		EP-A-	0688295	27-12-95
		GB-A,B	2291031	17-01-96